A 23-year-old man visited our hospital after suffering from dyspnea with a protruding midline neck mass for a half year. Chest computed tomography showed a huge thymic mass with left lower neck extension. He received a thymectomy. Grossly, the mass was well defined, lobular, and grayish white measuring 6.0 × 6.0 × 3.5 cm. Histopathology showed epithelioid-like cell nests with prominent nucleoli and lymphocyte infiltration in the background of so-called lymphoepithelioma-like carcinoma (LELC) of the thymus (Fig. 1). Epstein-Barr virus (EBV)-encoded RNA in situ hybridization showed numerous positive signals (Fig. 2). LELC of the thymus is a primary thymic carcinoma characterized by syncytial growth of undifferentiated carcinoma cells accompanied by lymphoplasmacytic infiltration similar to that of undifferentiated carcinoma of the nasopharynx. Thymic LELC occurs in the anterior mediastinum and usually extends into contiguous structures. Lymph nodes, the lung, liver, and bone are frequent sites of metastasis. Patients usually complain of dull chest pain, cough or dyspnea, and constitutional symptoms, but some patients are asymptomatic and are incidentally found to have an anterior mediastinal mass on imaging examination. About 47% of cases of
thymic LELC are associated with the EBV as demonstrated by EBV-encoded RNA in situ hybridization or DNA analysis. EBV is almost always positive in thymic LELC in children and young adults, such as in our patient. Thymic LELC is a highly malignant neoplasm with a poor prognosis. The estimated average survival is 16 months in 88% of patients.

Further reading
